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University of Montana projects

University of Montana--Missoula. Office of University Relations

UM News Tips

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UNIVERSITY OF MONTANA PROJECTS

Nature in the Classroom -- Kids in Montana and surrounding areas can have intimate encounters with the natural world without leaving their classrooms, thanks to the UM-based Montana Natural History Center. Center programs bring live birds of prey and a wolf into classrooms, and portable Nature Discovery Kits offer "nature in a box." The kits, available to teachers throughout the state and beyond, feature everything needed for a hands-on lesson plan, including pelts, skulls, puppets, games and story boards. The center also provides family naturalist programs that let children and parents explore nature together on field trips. The live-raptor presentation is planned during CNN's Missoula visit; the wolf presentation will be in Missoula Monday morning, Dec. 6, before hitting the road to visit Idaho schools. Nature Discovery Kits will also be in local classrooms Dec. 6-8.

Contact: Bob Petty, Montana Natural History Center president, 243-2486. home: 549-0212.

Rivers Underground -- Researchers at UM's Flathead Lake Biological Station are studying the vast subterranean world that thrives below rivers -- a world full of previously unknown species of worms, shrimp, insects and microscopic organisms. The subterranean animals thrive in a maze of underground channels flowing among the gravels, sands and rock that lie beneath many rivers around the world. The biological station, the nation's oldest active biological research station, is scenically located on the banks of Flathead Lake, the largest freshwater lake west of the Mississippi. Station Director Jack Stanford can show you samples of the diverse life forms found in the Flathead River and its underground watercourse.

Contact: Jack Stanford, 982-3301.

Acoustic Fingerprints -- At the eastern edge of UM's campus, on the slopes of Mount Sentinel, researcher Erick Greene encountered a beautiful, iridescent-feathered songbird whose song is as individual as a human's fingerprint. Each Lazuli Bunting has its own distinctive song, Greene says, noting that such acoustic fingerprinting is unique in the bird world. Greene is also working to monitor possible threats to the bird's continued presence on Missoula's slopes, hoping to keep the distinctive singers' population thriving.

Contact: Erick Greene, 243-2179; home 721-1941.

Caterpillar Mimics -- UM researcher Erick Greene is studying a unique caterpillar that exemplifies the adage, "You are what you eat." The caterpillars of the moth Nemoria arizonaria tailor their

appearance to fit the season. Spring and summer caterpillar broods, identical when they hatch, develop into two distinct forms to match the seasonal condition of their host oak trees. Spring caterpillars become perfect mimics of oak catkins, the tree's male flowers, while summer caterpillars, hatched after the catkins are gone, are living likenesses of oak twigs. Greene will have live specimens of both varieties in his lab this spring; during winter he can depict the caterpillars with words and color slides. His work has been featured on Turner Network Television's "The Trials of Life" and on PBS's "The Infinite Voyage."

Contact: Erick Greene, 243-2179; home 721-1941.

Running With Wolves -- Wolves have a mystique and wild allure that both fascinates and frightens. For two decades now UM's Wolf Ecology Project has been working to gain real information about the mysterious mammal, its habits and needs, while documenting the wolf's controversial return to the northern Rocky Mountains of Montana. Researchers' current efforts center on tracking wolves and their prey in the remote region around the North Fork of the Flathead River, just south of Canada. The project was featured in the Oct. 18, 1993, edition of Sports Illustrated. Researchers are available to share their experiences with wolves; a visit to the research site is possible, but a substantial time investment may be necessary in order to film the elusive animals.

Contact: Forestry Professor Dan Pletscher, 243-6364; home 542-4865. (note: Pletscher will be out of town Dec. 1-5)

Environmental Chamber -- Tucked into a corner of UM's Human Performance Laboratory is a new environmental chamber where researchers are studying ways to keep wildland firefighters as safe and comfortable as possible as they battle forest fires in some of the nation's most rugged terrain. The cedar and glass chamber, used to assess the effectiveness of protective gear and clothing, resembles a sauna and simulates the environment of a forest fire: an electric heater regulates temperature, a fan creates wind, rocks sprayed with water control humidity, heat lamps provide radiant heat, and a treadmill sets the speed and grade at which the volunteer subjects walk. Additional footage may be available at the U.S. Forest Service smokejumpers' center in Missoula.

Contact: Health and Human Performance Professor Emeritus Brian Sharkey, 243-4211; home 549-8204.

The Mysteries of Motion -- UM's Motor Control Research Lab is designed to unravel the mysteries of motion, from the seemingly effortless grace of a top athlete to the impaired movement caused by disabling conditions. The lab features computerized cameras and other sophisticated motion analysis devices that enable researchers to record and analyze any movement, no matter how subtle or swift, in three-dimensional detail. The equipment simultaneously assesses the motion and the neural activity that triggers it. The equipment is used by local physicians and researchers from varied UM departments. Lab Director Chuck Leonard says the equipment has been invaluable for his study of how cerebral palsy and strokes affect motion and how those disabling effects might be lessened. A video preview of the lab in action, shot by a local news station, is available.

Contact: Chuck Leonard, 243-2710; lab 243-2609; home 543-3008.

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